Model W300
(with optional TouchView™ control)

THE NEXT GENERATION IN POLYMER DRYERS

Conair's Carousel Dryers just keep getting better. This already superior dryer line has now been improved to help you achieve higher profit margins with increased productivity and product quality. All Carousel Plus Dryers sizes W150 and larger are now available with the new eight inch high-resolution TouchView™ control with bright, crisp graphics including trending screens.

Purchase this dryer and you will find that you have more control over drying dew point and temperature than ever before, in a package that is simpler, smaller, lighter, more energy efficient and easier to use and maintain than any other dryer on the market today.

MEDIUM CAPACITY CENTRAL OR MACHINE-SIDE DRYING

These medium-sized dryers are small enough to be used beside the machine, yet powerful enough for central drying.

The Carousel Plus Dryers use molecular sieve desiccant that is bonded into a fiberglass substrate and formed into a continuously rotating wheel. The result is rock steady drying temperatures and dew point levels, critical for processing moisture and temperature sensitive material.

These units are capable of delivering nominal throughput rates ranging from 150 to more than 400 lb/hour.

The thermo-formed, impact resistant ABS filter cover adds to the good looks and space-saving design of the Carousel Plus Dryers.

Models W150 and 200 also are available as Mobile Drying and Conveying units.

Optional easy-to-use, full-color touch screen

Intuitive screen navigation will allow you to easily view critical drying parameters such as dew point and temperature. With the optional TouchView™ control, operation and alarm diagnostics are very user friendly, and trending is available. This control is web-enabled too, so you can connect wirelessly with your tablet or smartphone.

Reduced energy costs

The desiccant wheel assembly heats and cools more easily than previous drying technology saving you up to 35% on your energy bill. Fewer parts, lighter structural mass, less to heat, therefore less wasted energy.

Maximum uptime, maximum reliability

With significantly reduced part count, easy access and less wear you can expect many years of trouble-free operation. The weight of the desiccant assembly has been reduced by 70%, the part count reduced by 90%, there are no more indexing bed plates, no more cumbersome 4-way valves and no more messy desiccant beads. Shift-after-shift this dryer will deliver the performance you need to stay up and running.

Precise, adjustable dew point control

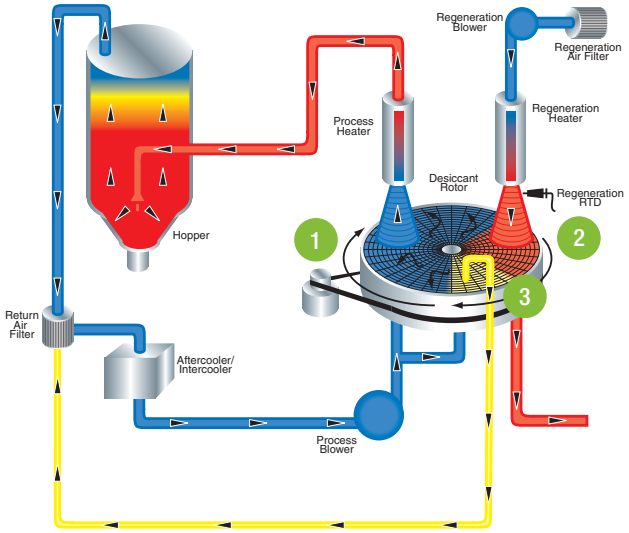
An industry first! The dew point control option built into the microprocessor control system allows you to select a particular dew point value, which the control locks onto. The control then adjusts various dryer functions to precisely hold the dew point selected, virtually eliminating any chance of overdrying expensive material.

CONAIR™

W MODELS 150, 200, 300 AND 400

HOW IT WORKS

The core of the Carousel Plus Dryer is the Munters® unique fluted desiccant rotor, which contains molecular sieve desiccant. The molecular sieve has been grown into the rotor's porous fiberglass substrate, preventing the possibility of desiccant break down and dusting over time.



The benefits

- The high airflow across the surface area of the rotor produces a resin-drying low dew point within five minutes of start-up and offers multi-year media life with virtually no maintenance.
- The continuously revolving rotor provides rock steady temperature and dew point control.
- The rotor technology minimizes energy consumption by reducing the structural mass, less structural mass to heat means less energy wasted.

1. First, the dry air is dehumidified in the adsorption cycle, capturing and removing moisture from the drying air stream.
2. Next, the desiccant passes into the high temperature regeneration cycle where the adsorbed moisture is heated and purged out of the desiccant to the atmosphere.
3. The desiccant is then advanced to the post-regeneration cooling cycle and cooled with closed loop dry air. All Carousel Plus Dryers feature this unique closed loop cooling technology to eliminate moisture that can cause defects in parts.

WHICH PACKAGE IS RIGHT FOR YOU?

STANDARD PACKAGES	MX	MZ	HY	TV
FEATURES				
DC-1 control	●	●		
DC-2 control			●	
DC-T control				●
Audible and visual alarms		●	●	●
Temperature setback		●	●	●
Dew point monitor		●	●	●
Dew point control		●	●	●
Trending screens				●
OPTIONS				
Communications			●	●
Precooler	●	●	●	●
Volatile trap	●	●	●	●
Filter check	●	●	●	●
Heat current monitor			●	
Drying monitor			●	●

FEATURE DESCRIPTIONS

- **Audible and visual alarm** - A combination of a blinking red alarm light and a horn alert the operator to any shut down alarm.
- **Temperature setback** - Automatically reduces the drying temperature to a lower standby mode when the machine throughput is reduced or stopped. Processors using resins prone to degradation due to over-drying could greatly benefit from the temperature setback feature.
- **Dew point monitor** - Allows the operator to monitor the performance of the dryer by providing a digital dew point readout of the drying air.
- **Dew point control** - Allows the dryer to lock onto and track an operator-selected dew point level. This feature helps prevent overdrying of moisture sensitive materials such as Nylon. Location and season changes can drastically change the atmospheric dew point of the air used for drying. Dew point control is used to increase or decrease the regeneration temperature from 350˚F {177˚C} as needed depending on atmospheric conditions. This type of control saves energy costs and increases end-product quality. The Carousel Plus is the first dryer in the plastics industry to provide precise dew point control!

OPTIONS

- **Drying monitor** - Automatically monitors the temperature profile inside your drying hopper within a pre-set temperature band to protect you from over drying or under drying your material.
- **Communications** - Allows the dryer to be networked to industrial control systems. When a dryer is connected to a network the controller on the network may read actual temperatures, change setpoints, read dryer status, and process and display this information at a central location. DeviceNet, SPI, Modbus and Ethernet communications are available.

CONTROLS

Choose the control you need...DC-1, DC-2 or TouchView™

DC-1 CONTROL FEATURES

- Six character, seven segment LED display for high visibility of set point and actual operating parameters
- Full access to setup parameters and alarms through error codes
- Autostart count down timer
- Operator password protection
- English/Metric units
- Solid-state heater contactors with isolation protection
- Return air temperature display

DC-2 CONTROL FEATURES

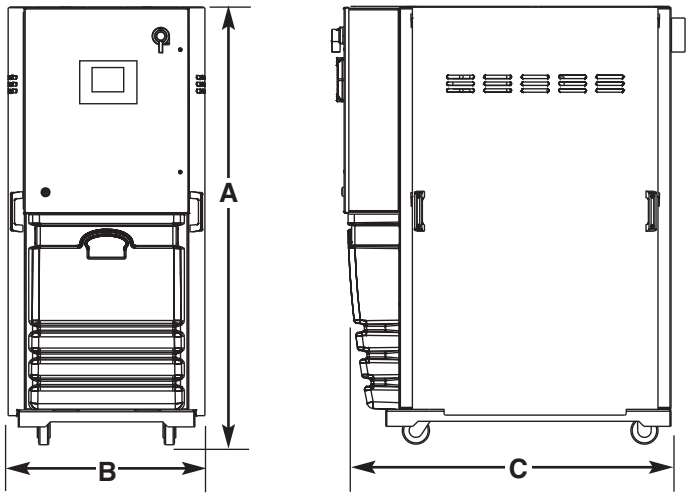
- LCD (2 X 20 character) alpha-numeric display with access to setup parameters, full diagnostics, alarm/event log and numerous options
- Eight character, fourteen segment LED display for high visibility of selected parameter status
- Keypad for easy operator access
- Real time clock
- Temperature setback
- Operator password protection
- Date format selection
- English/Metric units
- Return air temperature display
- Solid-state heater contactors with isolation protection

DC-T CONTROL FEATURES

- 8-inch color touch screen
- Web-enabled
- Password protected (multiple level)
- English/Metric units
- Trending - air temperature and dew point
- Return air temperature display
- Real-time clock - time of day
- Date format selection
- Auto start
- Temperature setback
- Solid-state heater contactors with isolation protection
- Multiple hopper control

W MODELS 150, 200, 300 AND 400

SPECIFICATIONS



MODEL	W150	W200	W300	W400
Performance characteristics (with full hopper)				
Drying temperature†	All models 100° - 375°F {38° - 191°C} with options			
Dew point	All models -40°F {-40°C}			
Dimensions inches {cm}				
A - Height	64.3 {163.3}			
B - Overall width	29 {73.7}			
C - Depth	51.5 {130.8}			
Outlet/inlet tube size OD	2.5 {63.5}	5.0 {127.0}	5.0 {127.0}	5.0 {127.0}
Weight lbs {kg}				
Standard dryer installed	600 {272}	660 {300}	710 {322}	760 {345}
Voltage - Full load amps Standard/Central drying				
230 V/3 phase/60 Hz	47.1 / 16.7	57.6 / 19.9	67.7 / 30.0	N/A
400 V/3 phase/50 Hz*	23.4 / 8.9	32.1 / 10.4	37.9 / 16.2	64.5 / 21.1
460 V/3 phase/60 Hz	21.0 / 8.4	28.9 / 10.0	34.0 / 15.1	56.3 / 18.6
575 V/3 phase/60 Hz	16.8 / 6.7	23.7 / 8.6	27.3 / 12.2	43.2 / 13.0
Water requirements	{for aftercooler or optional precooler}†			
Recommended temperature‡	45° - 85°F			
Water flow gal./min. {liters/min.}	3 {11.4}			
Water connections NPT	3/4 inch NPT			

SPECIFICATION NOTES:

* Dryers running at 50 Hz will have 17% less airflow, and a 17% reduction in material throughput.

† When drying below 150°F {66°C} a precooler is required.

‡ Temperatures above or below the recommended levels may affect dryer performance. Tower, chiller or municipal water sources can be used.

Specifications may change without notice. Consult a Conair representative for the most current information.

APPLICATION NOTES:

All dryers are supplied with an aftercooler as standard. The aftercooler reduces the temperature of the return air from the drying hopper, improving the efficiency of the desiccant. The aftercooler must be connected with the proper water flow rate and temperature to attain the rated throughput.

When to use central models

Central dryers do not have process heaters. These models should be used when drying multiple materials that require different drying temperatures. Central models dehumidify the process air, which is then heated to the correct setpoint by a Heater Pack mounted on the hopper and controlled from the dryer.

When to use additional filtration

The standard return air cartridge filter is sized for the airflow of each dryer model and is suited for most applications. You should consider adding an optional dust collector and/or volatile trap if:

- The material contains excessive fines. An additional dust collector or cyclone will extend time between filter cleaning.
- The material produces volatiles during drying which condense into a waxy or oily residue. A volatile trap will help to protect the desiccant.